

Comparisons of Job Characteristics

Focus Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	20.1	17.0	<	Expanded education and/or training may be required
Building and Construction	4.0	12.5	16.6	>>	Current knowledge level is likely more than sufficient
Physics	4.3	11.4	9.6	<	Expanded education and/or training may be required
Engineering and Technology	5.7	11.1	9.1	<	Expanded education and/or training may be required
Design	5.2	10.3	11.2	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Repairing	3.4	13.5	8.4	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	13.3	8.4	<<	Extensive development of skills in this area may be required
Installation	1.7	12.6	5.5	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	12.3	7.5	<<	Extensive development of skills in this area may be required
Operation Monitoring	6.6	11.4	9.6	<	A higher skill level may be required

Quality Control Analysis	5.9	11.2	8.7	<	A higher skill level may be required
Operation and Control	5.4	10.9	8.7	<	A higher skill level may be required
Equipment Selection	3.3	9.4	6.0	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 90

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Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Visualization	7.5	12.4	11.2	<	Some improvement in abilities may be required
Extent Flexibility	4.8	11.8	11.5	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	10.3	7.7	<<	Extensive improvement in abilities may be required
Hearing Sensitivity	5.6	10.0	7.2	<<	Extensive improvement in abilities may be required
Static Strength	5.0	10.0	9.2	0	Current ability level may be sufficient
Gross Body Coordination	3.9	7.4	7.4	0	Current ability level may be sufficient
Gross Body Equilibrium	3.2	7.1	8.0	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Assemble and install pipe sections, fittings, or plumbing fixtures	71
Braze metal parts or components together	85
Cut, bend, or thread pipe for gas, air, hydraulic, or water lines	84
Determine installation, service, or repair needed	58
Determine material or tool requirements	72
Determine project methods and procedures	76
Direct and coordinate activities of workers or staff	3
Estimate time or cost for installation, repair, or construction projects	54
Fabricate, assemble, or disassemble manufactured products by hand	11
Install or replace meters, regulators, or related measuring or control devices	66
Maintain or repair work tools or equipment	81

Maintain repair records	65
Measure and mark reference points or cutting lines on workpieces	66
Move or fit heavy objects	8
Pressure test piping system or equipment for leaks	89
Read blueprints	10
Read specifications	23
Read technical drawings	7
Repair or replace gas, steam, sewer, or water piping or fixtures	82
Repair or replace malfunctioning or worn mechanical components	62
Solder metal parts or components together	73
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use basic plumbing techniques	72
Use braze-welding equipment	92
Use combination welding procedures	68
Use hand or power tools	2
Use oral or written communication techniques	1
Use pipe fitting equipment	80
Use pressure gauges	76
Use soldering equipment	44
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

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Tools and Technologies	Exclusivity
Aerial lifts	13
Bandsaws and accessories	26
Business function specific software	1
Cameras	2
Cleaning equipment	11
Compressors	9
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Dispensing tools	6
Earth moving machinery	11
Electrical measuring and testing equipment	7

Face and head protection	7
Fall protection	16
Forming tools	2
Gas analyzers and monitors	10
Holding and clamping tools	3
Humidity and moisture measuring instruments	15
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Metals and metallurgy and structural materials testing instruments	15
Network applications software	1
Non destructive examination equipment	13
Passenger motor vehicles	13
Personal communication devices	2
Power tools	2
Pressure measuring and control instruments	10
Prying and bending tools	10
Pumps	9
Rough and finishing tools	5
Sampling equipment	12
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Surveillance and detection equipment	11
Temperature and heat measuring instruments	6
Tool attachments and accessories	12
Transportation related equipment and instruments	29
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.